

The hip joint



A good gluteal stretch



Photos by
Iain Weir

Attaining the correct position at the catch is easier with good hip flexibility. **Mark Edgar**, Head of Medical Services for the GB Rowing Team, explains more

The hip joint is the large ball and socket joint formed by the thigh bone (femur) and the pelvis. As a ball and socket arrangement it allows a large range of movement on three different planes.

rowing, especially as we approach the catch where the thigh comes close to the chest. This is a combined movement of hip flexion with some hip medial rotation. The rotation is required as the socket within the pelvis is not orientated directly forward or backwards

“There is considerable variation with regards to hip flexibility”

Remember, when assessing the hip, that the spine and the knee are intimately related as the structures above and below, and therefore the associated muscle, ligamentous and neural tissue are closely related as well. Specific notice should be paid to the hamstring muscle group as discussed in May's article.

These planes of motion are important in

but rather slightly angled outwards.

There is considerable variation across the population with regards to hip flexibility – some people are blessed with the ability to bring their thigh to the chest easily and hence have little difficulty coming to the correct position at the catch. Indeed, some people are so flexible in this area that they tend to over-compress the thigh to chest.

Jenny's tip



Most experienced rowers know to stretch their hamstrings and quads, but hip flexibility is often overlooked. It is important not only for good technique in the boat, but also for long-term back health if you stay in the sport, so be sure to include these stretches in your routine. You may find it helpful to get your coach to assess your body position as you stretch.

Jenny Rachel has been coaching for ten years, predominantly with men's and women's senior groups. Currently coaching the senior women's group at Maidenhead RC, Jenny is also a qualified sports and remedial massage therapist.

Inability to achieve thigh to chest easily



Over-compressing the thigh to chest

But unfortunately there are also people who cannot get their thigh to their chest easily and sometimes this forces these rowers to collapse or flex their lumbar spine – potentially leading to overload and the potential of injury to the spinal structures. It makes it look as though the rower is slumped in the boat and they may not physically be able to alter this position without considerable work. The rower may be trying, but they may not be able to achieve the desired pelvic position on the recovery and approaching the catch.

Some people also have asymmetries on one side, with one hip moving seemingly normally and the other unable to move either into flexion – thigh to chest – or lacking some medial rotation. Insufficient medial rotation means that the thigh can't move directly to the chest with the result that the thigh wants to drift away from the mid-line. In these cases it does seem as though some rowers with this problem prefer to row with this hip away from the rigger – so, for example, if the left hip is tight they may prefer to row stroke side or vice versa.

There are a small group of anomalies associated with the hip joint and pelvis that are beyond the remit of this article (e.g. 'cam lesions') but these can fundamentally affect the ability of the rower to achieve the normally required catch positions. If a rower has continued and ongoing hip discomfort or pain then they should have their hip assessed by a competent and rowing-aware physiotherapist, orthopaedic consultant or sports physician.

Assessment of hip range

The easiest way to assess your hip range of motion is to lie on the floor and pull your knee up to your chest in line with the nipple on that side. If the back needs to bend or the other (straight) leg begins to lift off the floor then you may have a restriction of hip flexion.

You can also test and/or stretch into hip flexion by placing your foot on a high stable bench or ergo and slowly easing

A good range of motion...



...and a poor range



Good thigh to chest motion



And poor thigh to chest motion



Take it further

British Rowing's posters can help you further. Watch for them at your club soon! The following exercises should help your hip flexibility:

- **Elementary flexibility** – hip flexion stretch / deep squat / gluteal muscle stretch (see main photo, left)



A good modification of hurdlers

- **Intermediate flexibility** – gluteal stretch in rotation / hurdlers / piriformis / cat stretch in kneeling



The cat stretch

yourself forward without losing posture in the rest of the body in the process of compressing thigh to chest.

If this is the case and there is no structural anomaly then some stretching may help.

The Thomas Test is an excellent way to assess some aspects of the hip range of motion, but should be conducted by an experienced physiotherapist. If the thigh cannot reach the chest easily then more flexibility or range may be required from the gluteal or buttock region. This could be a combination of the gluteals and the piriformis muscles or, if appropriately assessed, either muscle groups in isolation. ▀

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